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CIA Israel - uranium

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Mystery of Israel's Bomb

In the mid-1960s, 206 pounds of enriched uranium, enough to make nearly ten Hiroshima-size bombs, disappeared from a small processing plant in Apollo, Pa. For years, the FBI, the CIA and the now-defunct Atomic Energy Commission tried in vain to discover what happened to the missing uranium, suspecting that it was somehow diverted to Israel where it was fabricated into nuclear weapons. Their suspicions focused on Zalman Shapiro, a dedicated Zionist and enterprising scientist who ran the Apollo plant. The FBI has just completed its latest probe of the intriguing case, and reports that it finds Shapiro committed "no provable illegal act." NEWSWEEK's David Martin has reviewed recently declassified government files, spoken with some of those involved and spent nearly five hours with Shapiro himself. His account:

Zalman Mordecai Shapiro was born 57 years ago in Canton, Ohio, the son of an orthodox rabbi from Lithuania. As a child, he endured anti-Semitic insults and some of his relatives were killed by the Nazis. Says Shapiro: "I feel strongly about the need for an independent Jewish state." But discrimination hardly hampered his career. Valedictorian of his high-school class, Shapiro went to Johns Hopkins University, earned a masters degree at night school, won a fellowship from Standard Oil of Indiana and got his Ph.D. in chemistry in 1948. During that time, too, he became active in the Zionist Organization of America and the American Technion Society, which raised funds and provided technical equipment and guidance to the Technion Institute of Technology at Haifa—Israel's MIT.

In 1948, Shapiro went to work for the Westinghouse Electric Corp. and was soon assigned to the development of a reactor for the first U.S. nuclear submarine, the Nautilus. He won a company award for distinguished service but left in 1957 to establish his own firm to produce uranium-oxide fuel for a growing number of commercial atomic plants. Says Shapiro, "There were a lot of things I thought could be done better." In December 1957, his Nuclear Materials and Equipment Corp. (NUMEC) began operating near Apollo, Pa.

Worried: Security was almost lax from the start. An AEC memo in 1962 reported that "security inspections at NUMEC have disclosed numerous discrepancies attributable to lack of effort on the part of NUMEC management." The AEC was worried. NUMEC had developed extensive business ties with the French and Israeli governments; there was a constant stream of foreign

cense. "Safeguards were virtually nil" throughout the industry in those days, one nuclear expert recalls.

A routine AEC check at NUMEC in 1965, however, revealed that more than 100 pounds of weapons-grade uranium was missing, and later inventories raised the figure to 206 pounds. Many of the plant's records were gone and Shapiro said that most of the missing uranium had been buried in the plant's waste pits, although he was able to dig up only about 10 pounds. NUMEC employees told the AEC that high losses were characteristic of the plant's special process, and the agency told Congress's Joint Atomic Energy Committee that more than half the missing material could simply have gone down the drain.

"The NUMEC plant would have had to run seven days a week, 24 hours a day, since before the Revolutionary War" for that much loss, one committee staffer replied. Still, the AEC found "no evidence [of] unlawful activity or that special nuclear material had been diverted."

Traces: The Joint Committee asked the FBI to look into the matter, but the bureau concluded only that Shapiro's ties with Israel did not require him to register as a foreign agent. Then, in 1968, the CIA got into the case after receiving reports that Israel had somehow obtained a supply of enriched uranium. The agency had suspected since 1960 that the Israelis were working on an atomic bomb, but it doubted their capacity to produce the necessary nuclear fuel at an experimental plant purchased from the French in 1957 and set up secretly near Dimona in the Negev. Using sophisticated technology, the agency confirmed traces of enriched uranium in waste from Dimona. And suddenly Zalman Shapiro's foreign connections—which often had made him a valuable source to the CIA itself—brought him under suspicion.

CIA director Richard Helms took the matter to President Lyndon Johnson. No official records of their meeting are available, and Helms won't discuss it. But former CIA technical expert Carl Duckett later told government officials that

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